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Figart

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(54) **WHEEL CHOCK AND METHOD OF USE**

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B60P 3/077 (2006.01)

(52) **U.S. Cl.**
CPC ***B60P 3/077*** (2013.01)

(58) **Field of Classification Search**
None
See application file for complete search history.

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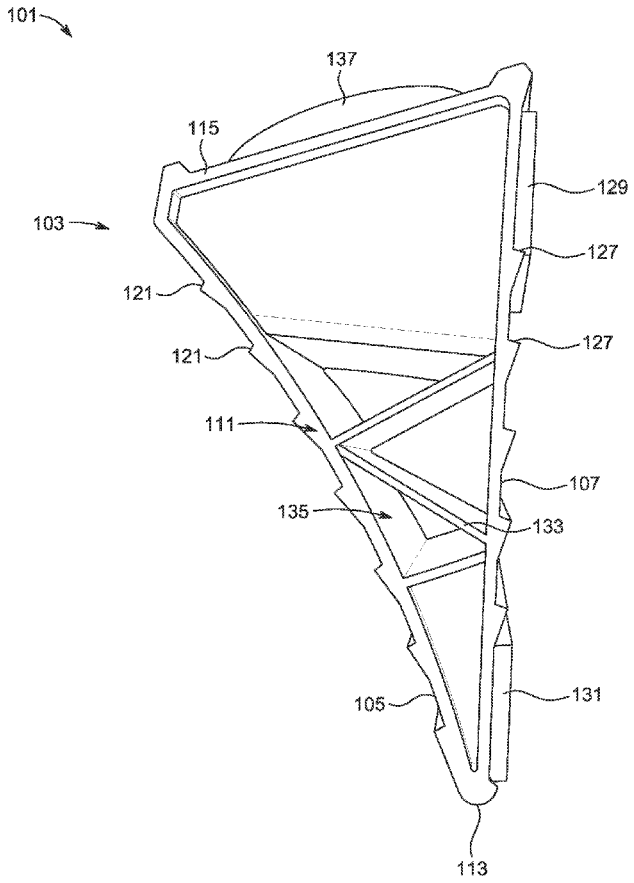
(57) **ABSTRACT**

A wheel chock utilizing a magnet that enables quick employment while providing for easy and efficient transport and storage is disclosed. The wheel chock comprises a generally triangular shaped body having a top portion, a flat bottom portion, opposing sides, and a rear portion; and a magnet securely coupled to the rear portion via a fastening mechanism. The magnet is configured to exert a vertical magnetic force of approximately 100 pounds.

10 Claims, 6 Drawing Sheets



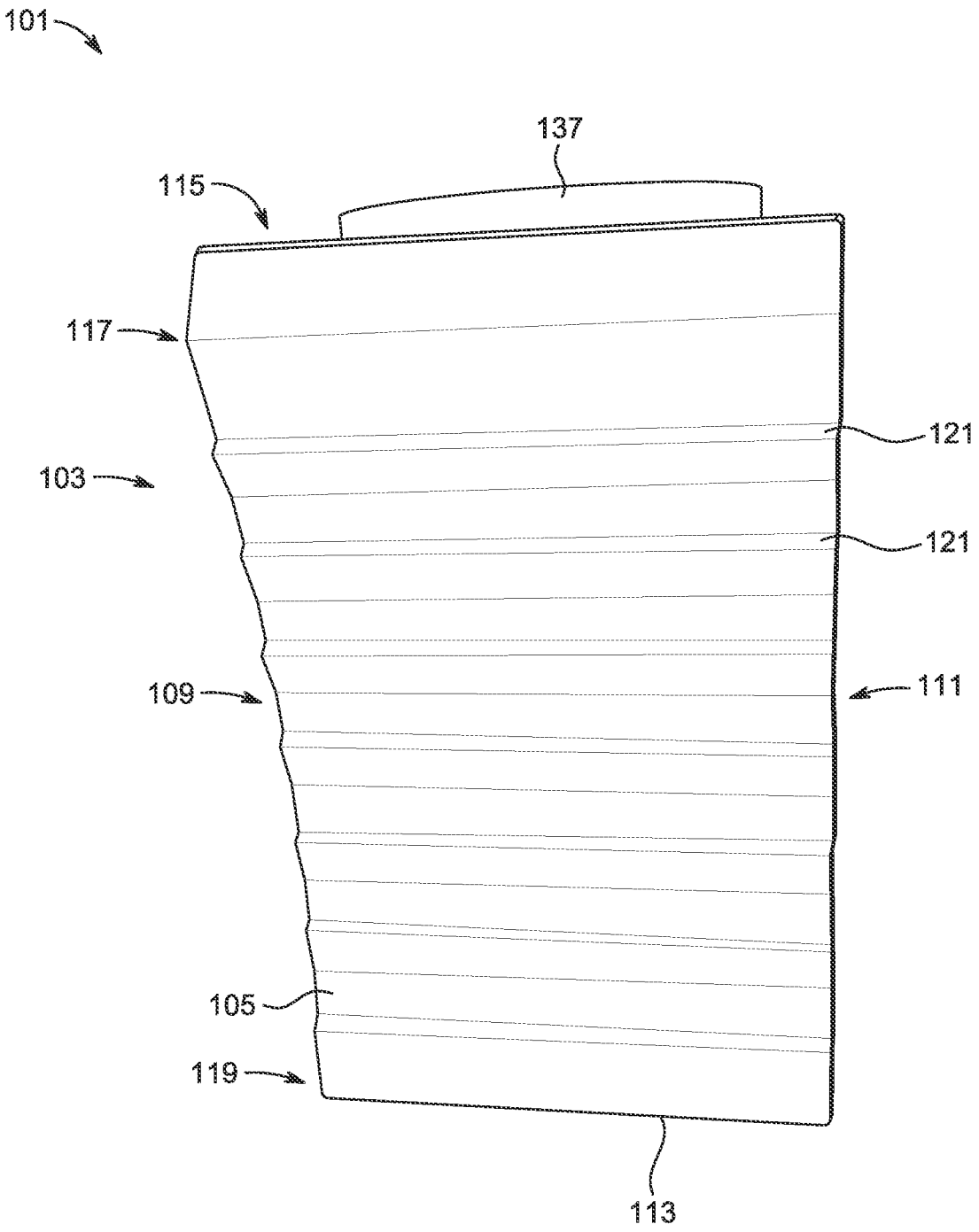


FIG. 1A

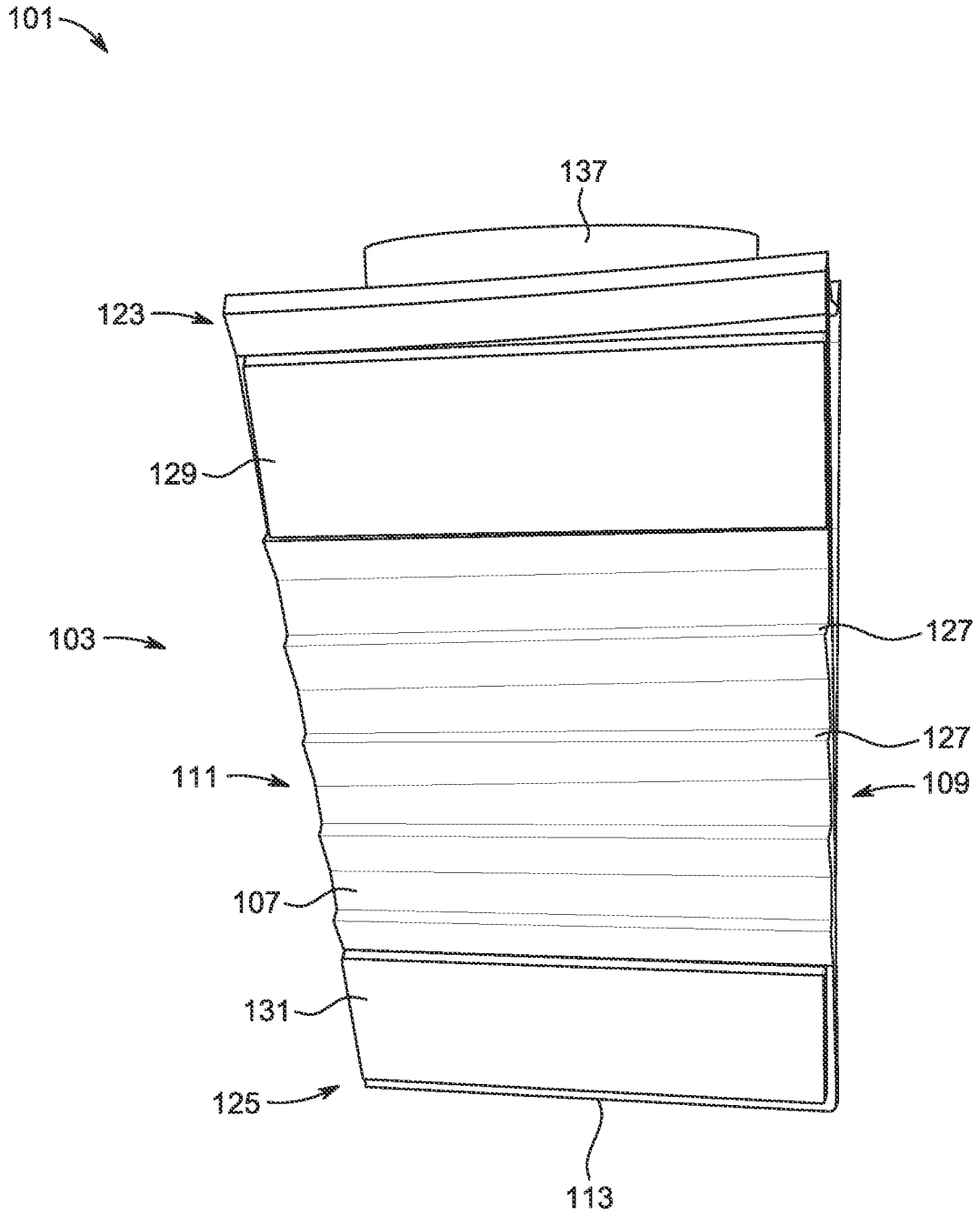


FIG. 1B

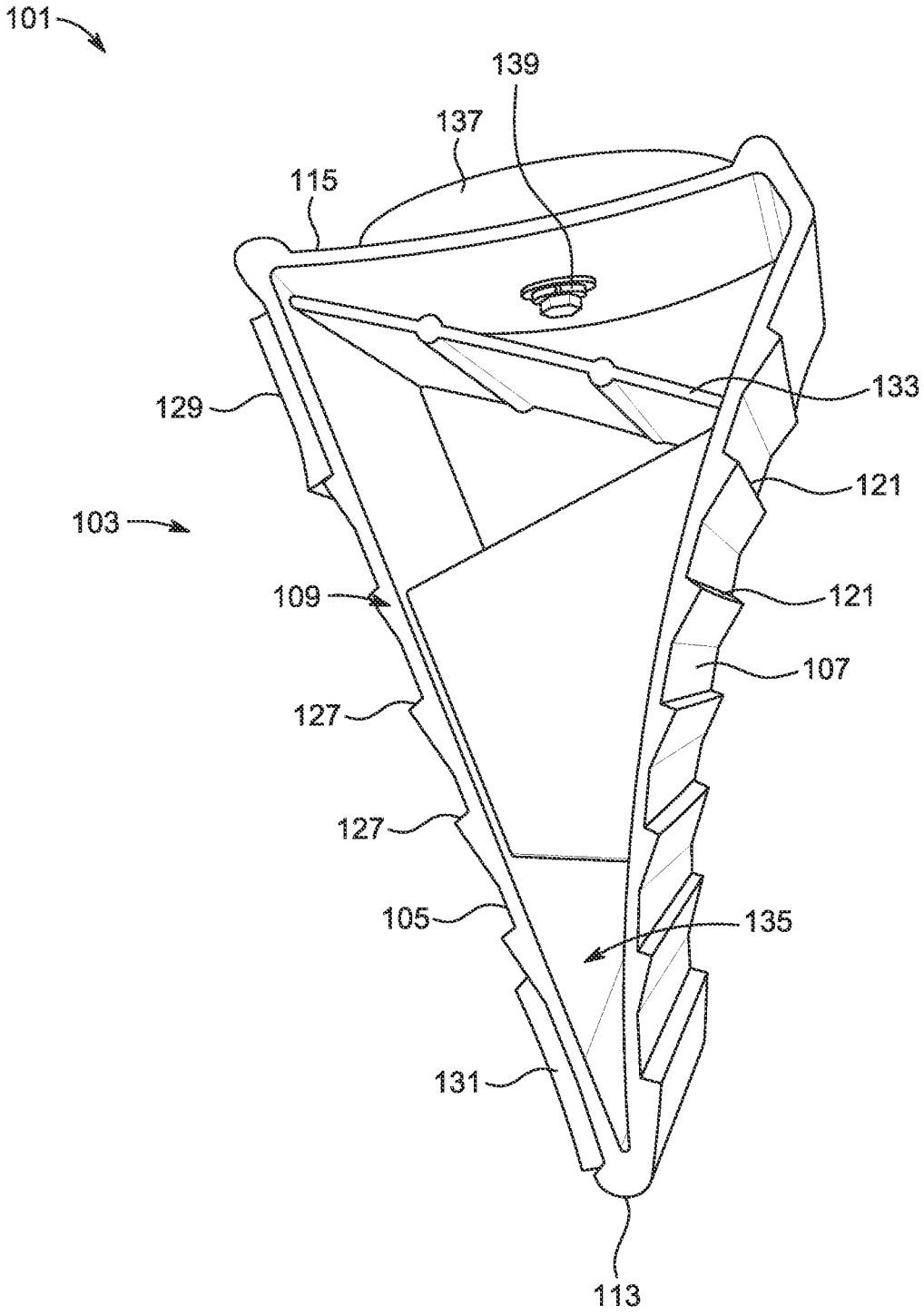

101
139
137
115
129
133
121
103
109
121
107
127
127
105
135
131
113

FIG. 1C

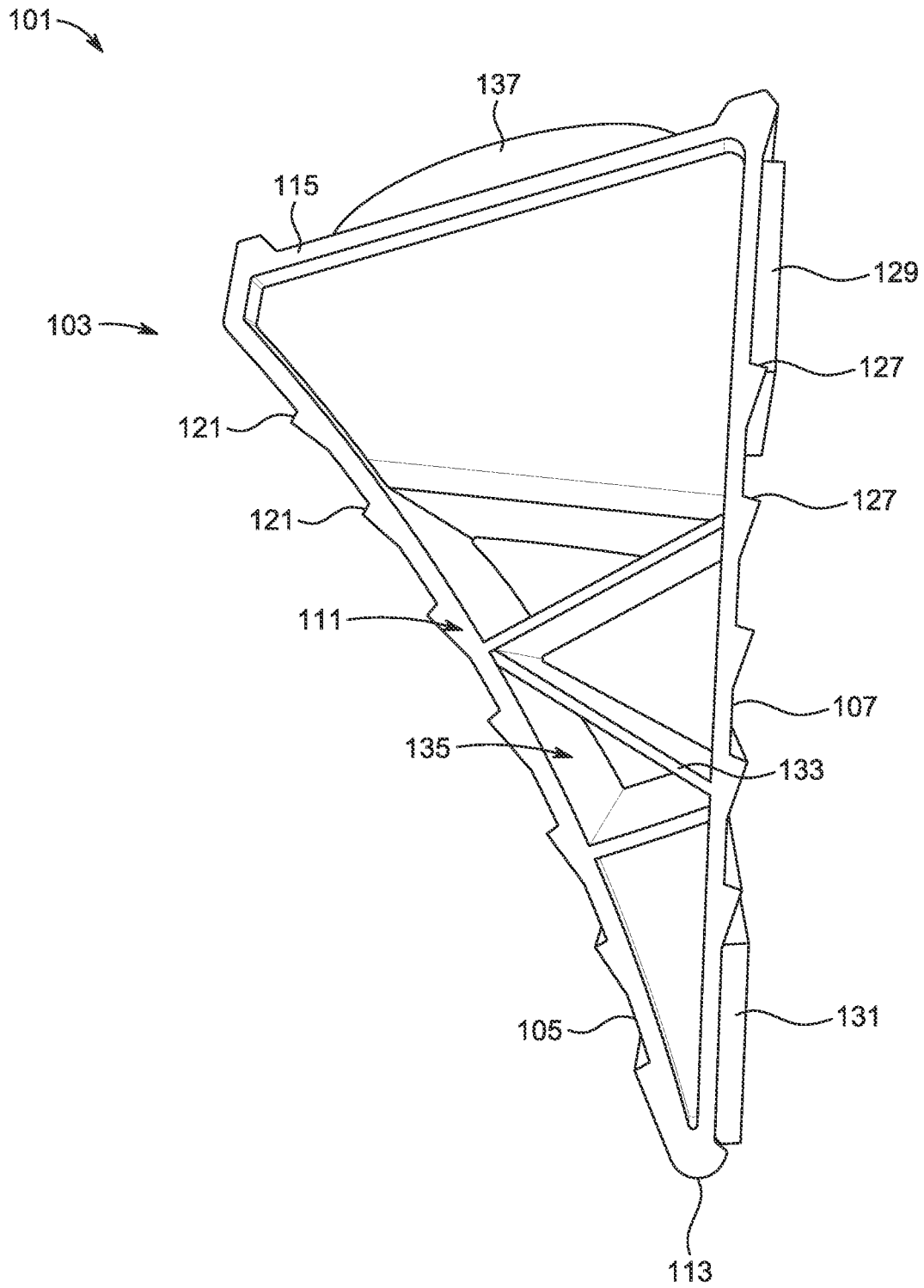


FIG. 1D

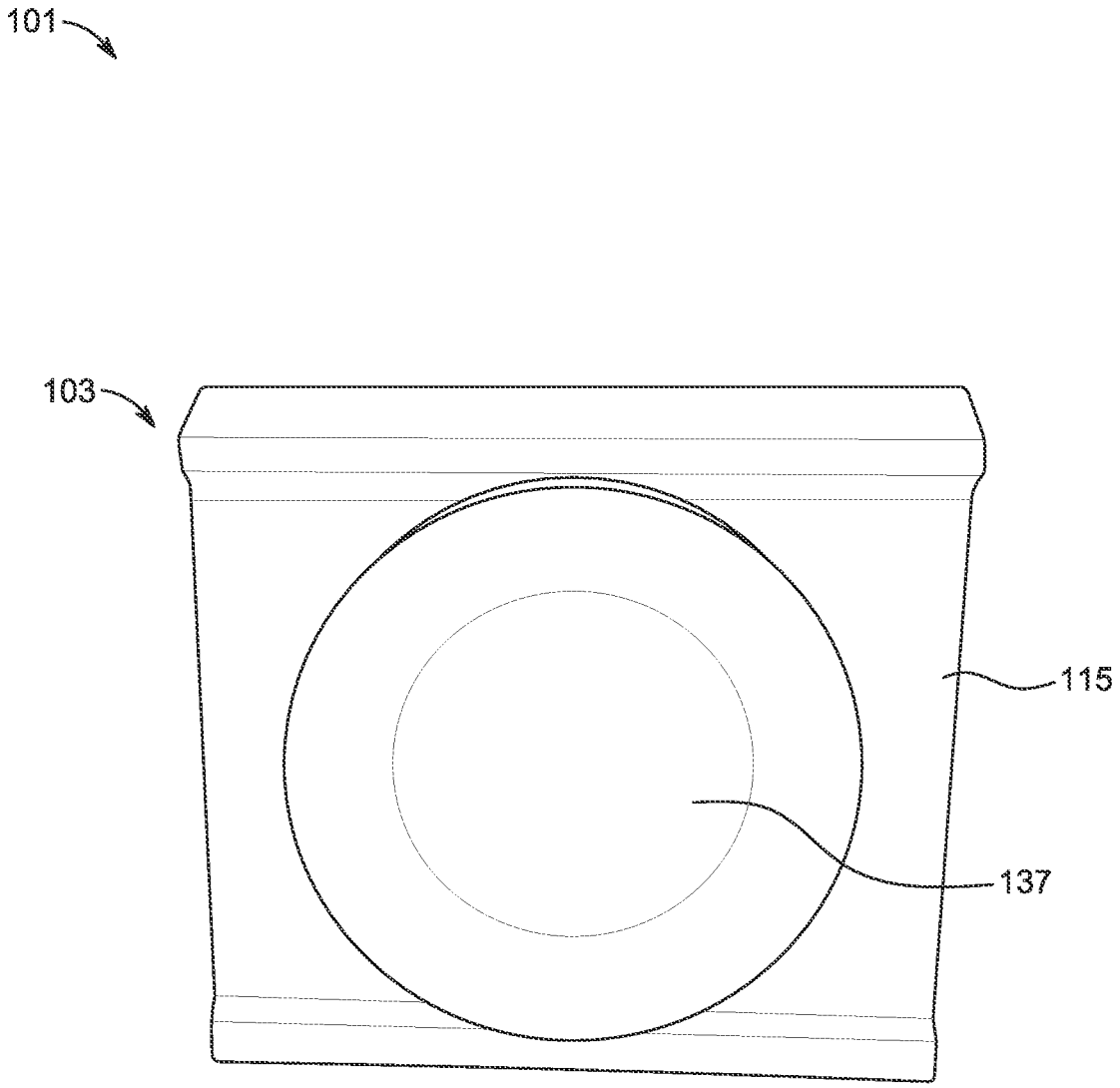


FIG. 1E

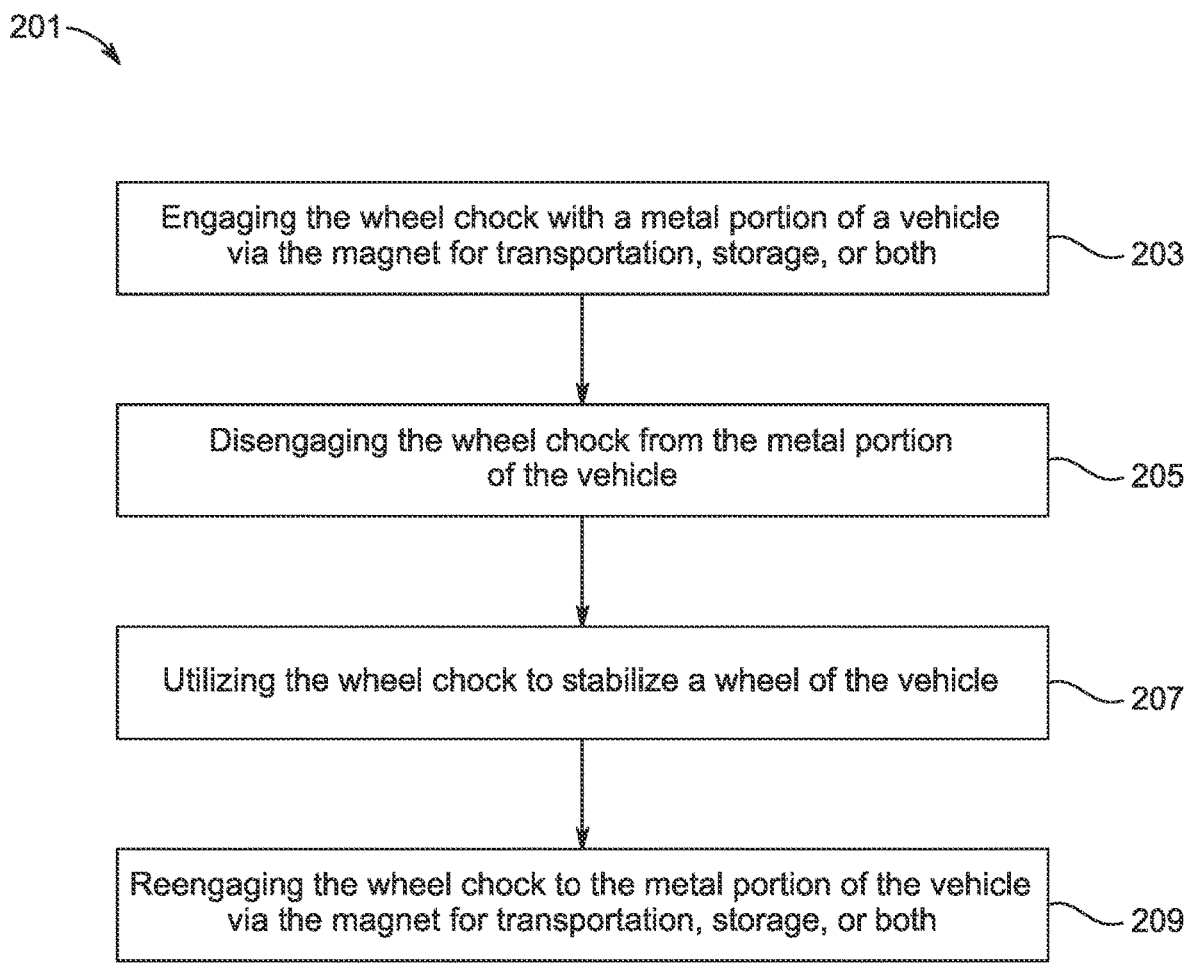

201
Engaging the wheel chock with a metal portion of a vehicle via the magnet for transportation, storage, or both
203
Disengaging the wheel chock from the metal portion of the vehicle
205
Utilizing the wheel chock to stabilize a wheel of the vehicle
207
Reengaging the wheel chock to the metal portion of the vehicle via the magnet for transportation, storage, or both
209

FIG. 2

WHEEL CHOCK AND METHOD OF USE

BACKGROUND

1. Field of the Invention

The present invention relates generally to wheel chocks, and more specifically to a wheel chock utilizing a magnet that enables quick employment while providing for easy and efficient transport and storage.

2. Description of Related Art

Wheel chocks are well known in the art and are effective means to prevent accidental movement of a vehicle's wheels. Examples of vehicles that benefit from the user of wheel chocks include trucks, trailers, campers, cars, recreational vehicles, and the like. Typically, one or more wheel chocks are employed to maintain a stable position against external forces (e.g., gravity) and environmental conditions (e.g., wind, snow, ice, etc.). In this regard, these chocks are usually transported with the vehicle for easy access.

One of the problems associated with conventional wheel chocks is their limited efficiency. For example, conventional wheel chocks have body configurations that are space consuming, making it difficult to store within a vehicle during transport. In addition, because a plurality of wheel chocks is typically used for a vehicle's wheels, the user must inconveniently find additional space within the vehicle to transport and store the wheel chocks.

Accordingly, it is an object of the present invention to provide an improved wheel chock that enables quick employment while providing for easy and efficient transport and storage.

DESCRIPTION OF THE DRAWINGS

The novel features believed characteristic of the embodiments of the present application are set forth in the appended claims. However, the embodiments themselves, as well as a preferred mode of use, and further objectives and advantages thereof, will best be understood by reference to the following detailed description when read in conjunction with the accompanying drawings, wherein:

FIG. **1**A is a top perspective view of a wheel chock in accordance with a preferred embodiment of the present invention;

FIG. **1**B is a bottom perspective view of the wheel chock of FIG. **1**A;

FIG. **1**C is a side view of the wheel chock of FIG. **1**A;

FIG. **1**D is another side view of the wheel chock of FIG. **1**A;

FIG. **1**E is a rear view of the wheel chock of FIG. **1**A;

FIG. **2** is a flowchart of a method of use of the wheel chock of FIG. **1**A.

While the system and method of use of the present application is susceptible to various modifications and alternative forms, specific embodiments thereof have been shown by way of example in the drawings and are herein described in detail. It should be understood, however, that the description herein of specific embodiments is not intended to limit the invention to the particular embodiment disclosed, but on the contrary, the intention is to cover all modifications, equivalents, and alternatives falling within the spirit and scope of the present application as defined by the appended claims.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT

Illustrative embodiments of the system and method of use of the present application are provided below. It will of course be appreciated that in the development of any actual embodiment, numerous implementation-specific decisions will be made to achieve the developer's specific goals, such as compliance with system-related and business-related constraints, which will vary from one implementation to another. Moreover, it will be appreciated that such a development effort might be complex and time-consuming, but would nevertheless be a routine undertaking for those of ordinary skill in the art having the benefit of this disclosure.

The system and method of use in accordance with the present application overcomes one or more of the above-discussed problems commonly associated with conventional wheel chocks. Specifically, the present invention enables a user to quickly access, transport, and store one or more wheel chocks. These and other unique features of the system and method of use are discussed below and illustrated in the accompanying drawings.

The system and method of use will be understood, both as to its structure and operation, from the accompanying drawings, taken in conjunction with the accompanying description. Several embodiments of the system are presented herein. It should be understood that various components, parts, and features of the different embodiments may be combined together and/or interchanged with one another, all of which are within the scope of the present application, even though not all variations and particular embodiments are shown in the drawings. It should also be understood that the mixing and matching of features, elements, and/or functions between various embodiments is expressly contemplated herein so that one of ordinary skill in the art would appreciate from this disclosure that the features, elements, and/or functions of one embodiment may be incorporated into another embodiment as appropriate, unless described otherwise.

The preferred embodiment herein described is not intended to be exhaustive or to limit the invention to the precise form disclosed. It is chosen and described to explain the principles of the invention and its application and practical use to enable others skilled in the art to follow its teachings.

Referring now to the drawings wherein like reference characters identify corresponding or similar elements throughout the several views, FIGS. **1**A through **1**E depict various views of a wheel chock **101** in accordance with a preferred embodiment of the present application. It will be appreciated that the wheel chock **101** overcomes one or more of the above-listed problems commonly associated with conventional wheel chocks.

In the contemplated embodiment, the wheel chock **101** comprises a generally triangular shaped body **103** having a top portion **105**, a flat bottom portion **107**, opposing sides **109**, **111**, a front edge **113**, and a rear portion **115**. It will be appreciated that more or fewer of such components may be included in different embodiments of the wheel chock **101**.

The top portion **105** includes a relatively elevated upper rear end **117** and a relatively lower front end **119**. In addition, the top portion **105** includes a plurality of ridges **121** configured to engage with a wheel of a vehicle (not shown) when the wheel chock **101** is positioned under the wheel.

The bottom portion **107** includes a rear end **123** and a front end **125**. In addition, the bottom portion **107** includes

a plurality of ridges **127**, a first grip member **129**, and a second grip member **131**. The plurality of ridges **127** are configured to engage with a ground surface (not shown) and configured to prevent the wheel chock **101** from displacing when a wheel engages with the top portion **105**. The grip members **129**, **131** are configured to maintain firm contact with the ground surface for the wheel chock **101**.

The opposing sides **109**, **111** include a plurality of support members **133** that create a plurality of cavities **135** therein.

The lower front ends **119**, **125** communicate to define the front edge **113**.

The rear portion **115** couples the upper rear end **117** to the rear end **123**.

The wheel chock **101** further includes a magnet **137** securely coupled to the rear portion **115** via a fastening mechanism **139**. In the preferred embodiment, the magnet **137** includes dimensions of approximately 88-millimeters in length and approximately 8-millimeters in height. Also, in the preferred embodiment, the magnet **137** is neodymium rubber coated with internal threads (e.g., M6). It should be appreciated that the magnet **139** has a vertical magnetic force of approximately 100-pounds, enabling the wheel chock **101** to couple to a metal portion of a vehicle. It should also be appreciated that the fastening mechanism **139** may be any fastener suitable to securely couple the magnet **137** to the rear portion **115** including, without limitation, screws, bolts, fender washers, lock washers, other suitable fasteners, or the like.

In the preferred embodiment, the wheel chock **101** includes dimensions of approximately 8-inches in length, 4.75-inches in width, and 4.25-inches in height. It should be appreciated that the wheel chock **101** may have a wide range of dimensions depending on the dimensions of a vehicle's tires.

It should be appreciated that the wheel chock **101** may be made from any suitable or desired materials, including conventional materials known and used in the art, such as, steel materials, aluminum materials, other metal alloy materials, polymeric materials, rubber materials, combinations of various materials, and the like.

It should also be appreciated that the wheel chock **101** may include different colored materials, colored patterns, images, and the like.

It should further be appreciated that one of the unique features believed characteristic of the present application is the inclusion of a magnet capable of coupling the wheel chock to a metal surface of a stationary or moving vehicle.

In FIG. **2**, a flowchart **201** depicts a simplified method of use associated with the wheel chock **101**. During use, the wheel chock is engaged with a metal portion of a vehicle via the magnet for transportation, storage, or both, as shown with box **203**. When the wheel chock is disengaged from the metal portion of the vehicle, the wheel chock is utilized to stabilize a wheel of the vehicle, as shown with boxes **205**, **207**. The wheel chock is then reengaged to the metal portion of the vehicle via the magnet for transportation, storage, or both, as shown with box **209**.

The particular embodiments disclosed above are illustrative only, as the embodiments may be modified and practiced in different but equivalent manners apparent to those skilled in the art having the benefit of the teachings herein. It is therefore evident that the particular embodiments disclosed above may be altered or modified, and all such variations are considered within the scope and spirit of the application. Accordingly, the protection sought herein is as set forth in the description. Although the present embodiments are shown above, they are not limited to just these embodiments, but are amenable to various changes and modifications without departing from the spirit thereof.

What is claimed is:

1. A wheel chock, comprising:

a generally triangular shaped body, the body having:

a top portion having a top surface that extends from an elevated upper rear end to a lower front end, and a plurality of ridges extending from the top surface and configured to engage with a wheel of a vehicle;

a flat bottom portion having a bottom surface that extends from a front end to a rear end, a plurality of ridges configured to engage with a ground surface, and one or more grip members configured to maintain firm contact with the ground surface;

opposing sides having a plurality of support members that create a plurality of cavities therein; and

a rear portion having a rear surface extending between the elevated upper rear end of the top portion and the rear end of the bottom portion, the rear portion does not come into contact with the wheel of the vehicle or the ground surface when in use;

wherein the lower front end of the top portion and the front end of the bottom portion connect to define a front edge; and

a magnet securely coupled to the rear portion via a fastening mechanism, the magnet configured to exert a vertical magnetic force of approximately 100 pounds, the magnet protruding from the rear surface of the rear portion such that the rear surface does not come into contact with a surface to which the magnet is magnetically retained;

wherein the magnet does not come into contact with the wheel of the vehicle or the ground surface when the wheel chock is in use.

2. The wheel chock of claim **1**, wherein the magnet further comprises a neodymium rubber coat with an internal thread.

3. The wheel chock of claim **1**, wherein the magnet is a circular magnet having a length of approximately 88-millimeters.

4. The wheel chock of claim **3**, wherein the magnet is a single magnet, the wheel chock lacking any additional magnets.

5. The wheel chock of claim **4**, wherein the fastening mechanism is a bolt extending through the rear portion and into the magnet.

6. A method of transporting and storing a wheel chock for quick employment, the method comprising, in functional order:

providing a wheel chock, the wheel chock comprising:

a generally triangular shaped body, the body having:

a top portion having a top surface that extends from an elevated upper rear end to a lower front end, and a plurality of ridges extending from the top surface and configured to engage with a wheel of a vehicle;

a flat bottom portion having a bottom surface that extends from a front end to a rear end, a plurality of ridges configured to engage with a ground surface, and one or more grip members configured to maintain firm contact with the ground surface;

opposing sides having a plurality of support members that create a plurality of cavities therein; and

a rear portion having a rear surface extending between the elevated upper rear end of the top portion and the rear end of the bottom portion, the

rear portion does not come into contact with the wheel of the vehicle or the ground surface when in use;

wherein the lower front end of the top portion and the front end of the bottom portion connect to define a front edge; and

a magnet securely coupled to the rear portion via a fastening mechanism, the magnet configured to exert a vertical magnetic force of approximately 100 pounds, the magnet protruding from the rear surface of the rear portion;

engaging the wheel chock with a metal portion of the vehicle via the magnet for transportation, storage, or both, wherein the rear surface does not come into contact with the metal portion of the vehicle when the magnet is there engaged;

disengaging the wheel chock from the metal portion of the vehicle by applying at least 100 pounds of force against the magnet;

utilizing the wheel chock to stabilize the wheel of the vehicle, wherein the magnet does not come into contact with the wheel or the ground surface during stabilization; and

reengaging the wheel chock with the metal portion of the vehicle.

7. The method of claim **6**, wherein the magnet further comprises a neodymium rubber coat with an internal thread.

8. The method of claim **6**, wherein the magnet is a circular magnet having a length of approximately 88-millimeters.

9. The method of claim **8**, wherein the magnet is a single magnet, the wheel chock lacking any additional magnets.

10. The method of claim **9**, wherein the fastening mechanism is a bolt extending through the rear portion and into the magnet.

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